

Notice of Allowability

Application No.

09/443,460

Examiner

Justin R Fischer

Applicant(s)

KOBAYASHI ET AL.

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 26 January 2004.
2. ☒ The allowed claim(s) is/are 10-15 and 17-31 (renumbered 1-21).
3. ☒ The drawings filed on 19 November 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

SAM CHUAN YAO
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 10-15 and 17-31 (renumbered 1-21) are allowed. The following is an examiner's statement of reasons for allowance:

Regarding claims 10-13, 15, 17, and 25-31, the prior art references of record failed to suggest, disclose, or teach a runflat, pneumatic tire construction having a rubber reinforcing layer arranged at an inner surface side of an innermost carcass ply and a rubber protection sheet being softer than the rubber reinforcing layer, wherein an entirety of said rubber protection sheet is disposed (i) between the rubber reinforcing layer and the adjacent carcass ply and (ii) within a zone extending inward from a line segment that passes the radially outer end of a bead filler and is parallel to the tire axis of rotation. The closest prior art is Kawabata (JP 4-345505) and Kojima (JP 1-278806), each of which is directed to a runflat, pneumatic tire construction having an axially inner rubber reinforcing layer and a rubber protection sheet between said rubber reinforcing layer and a bead filler. However, in each instance, the rubber protection sheets (reference character 60 in Kawabata and A3 in Kojima) are not positioned within a zone extending inward from a line segment that passes the radially outer end of the bead filler and is parallel to the tire axis of rotation. One of ordinary skill in the art at the time of the invention would not have found it obvious to alter the positioning of the respective protection sheets to satisfy the limitations of the claimed invention.

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With respect to claims 19-24, it is known in the prior art to form a runflat pneumatic tire construction having a rubber reinforcing layer and a cord reinforced layer between the bead filler and the adjacent carcass ply, as shown for example by Robinson (US 5,679,188) and Paonessa (US 5,871,602). These references, however, do not suggest the inclusion of a reinforcing layer absent any cord reinforcement or a rubber protection sheet and thus necessarily do not suggest the claimed loss hysteresis for such a rubber protection sheet. In this instance, though, Osawa does suggest a pneumatic tire construction having a rubber protection sheet between the bead filler and the adjacent carcass ply and while the reference fails to include a rubber reinforcing layer, it is extremely well known in the tire industry to include such a layer to improve a given tires ability to operate in an underinflated condition. Osawa further appreciates that the modulus of such a rubber protection sheet is smaller than the corresponding modulus of the carcass coating rubber. However, Osawa is completely silent with respect to the loss hysteresis of the rubber protection sheet and thus necessarily fails to suggest a range between 0.04 and 0.11 at 25 °C. One of ordinary skill in the art at the time of the invention would not have found it obvious to form the rubber protection sheet of Osawa with the claimed properties, especially in light of the small and narrow range for the loss hysteresis required by the claimed invention.

As to claims 14 and 18, the prior art references of record failed to suggest a runflat, pneumatic tire construction having a rubber reinforcing layer and a pair of rubber protection sheets between said rubber reinforcing layer and an adjacent carcass ply. It is noted that Yamagishi (JP 8-175132) does recognize the use of multiple rubber

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protection sheets; however, the rubber protection sheets are disposed between the bead filler and the adjacent carcass ply, not between a rubber reinforcing layer and an adjacent carcass ply as required by the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin Fischer

April 9, 2004


SAM CHUAN YAO
PRIMARY EXAMINER